

Assembly, Operator's and Parts Manual

Part No. P3713

06/96

WARRANTY REGISTRATION AND POLICY

Buhler Manufacturing products are warranted for a period of twelve (12) months from original date of purchase, by original purchaser, to be free from defects in material and workmanship under correct, normal agricultural use and proper applications.

Buhler Manufacturing's obligations under this warranty shall be limited to the repair or exchange, at Buhler Manufacturing's option, of any Buhler Manufacturing product or part which proves to be defective as provided. Buhler Manufacturing reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection.

The above warranty does not extend to goods damaged or subject to accident, abuse or misuse after shipment from Buhler Manufacturing's factory, nor to goods altered or repaired by anyone other than an authorized Buhler Manufacturing representative.

Buhler Manufacturing makes no Express Warranties other than those which are specifically described. Any description of goods, including any references and specifications in catalogues, circulars and other written material published is for the sole purpose of identifying goods and shall conform to such descriptions. Any sample or model is for illustrative purposes only and does not create an Express Warranty that the goods conform to sample or model shown.

The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Manufacturing will in no event be liable for any incidental or consequential damages whatsoever, nor for any sum in excess of the price received for the goods for which liability is claimed.

WARRANTY CLAIMS:

Warranty requests must be prepared on Buhler Manufacturing Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

WARRANTY LABOR:

Any labor subject to warranty **must** be authorized by Buhler Manufacturing. The labor rate for replacing defective parts, where applicable, will be credited at a rate determined by the Company, Buhler Manufacturing.

IMPORTANT FACTS:

Buckets and Bucket Tines Carry No Warranty Bent Spears Carry No Warranty Snowblower Fan Shafts Carry No Warranty Mower Blades Carry No Warranty Portable Auger Parts Have Two (2) Year Warranty Loader Parts Have Two (2) Year Warranty

395 & S395 Hydraulic Farm Loader

Operator's Manual

Table of Contents

| Section | Description | Page |
|----------------|--|------|
| | Warranty Registration and Policy Table of Contents | |
| | Loader Specification Chart | 2 |
| Introduction | Torque Chart | 2 |
| and | Pre-delivery Check List | 3 |
| Identification | Loader Identification Diagram | 3 |
| | Hydraulic Hose Kit Identification Diagrams | 4 |
| Safety | Important Precautions | 5 |
| and | Safety | 6 |
| Pre-use | Safety Decals | 7 |
| Information | Lubrication and Decal Location Diagram | 8 |
| | General Instructions and Information | 9 |
| | Operating Suggestions for Loading | 10 |
| Operating | Operating Suggestions for Backfilling | 11 |
| Information | Attaching the Loader to Your Tractor | 12 |
| | Removing the Loader from Your Tractor | 14 |
| | Operation and Maintenance | 16 |
| | Trouble Shooting | 17 |
| Assembly | Subframe Diagram | 18 |
| and | Mainframe Diagram | 20 |
| Parts | Hydraulic Plumbing Diagram | 22 |
| Information | Hydraulic Cylinder Assembly | 24 |



IMPORTANT

PLEASE READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING LOADER.

Loader Specifications

(PER ASAE \$301.2)

Model number: 395 REGULAR

Mounting height: 29.0" nominal (Typical range: 27.0" - 31.0")

Cylinder specifications:

| Cylinder | Bore | Rod | Stroke |
|----------|-------|-------|--------|
| Bucket | 2.00" | 1.25" | 20.75" |
| Lifting | 2.00" | 1.50" | 20.75" |

A) Maximum lift height: 120.3" (10.0')

B) Clearance with bucket dumped: 94.4" (7.9')

C) Reach at maximum height: 23.0"
D) Maximum dump angle: 30.0 deg.

F) Bucket rollback angle: 30.0 deg.

G) Digging depth: 3.4"

H) Overall height in carry position: 62.1" (5.2')

R) Rollback angle at full height: 106.5 deg.

Calculated breakout force: 1560 lbs Calculated lift capacity: 1255 lbs

Notes:

- 1) Calculated values assume 2500 psi lift cylinder pressure.
- 2) Breakout force estimated as per ASAE S301.2 4.12 (Net payload applied at cutting edge).
- 3) Lift capacity estimated as per ASAE S301.2 4.11 (Net payload applied at bucket midpoint).
- 4) Average bucket weight (72"): 450 lbs.
- 5) "Short" models breakout approx. 10% more than corresponding reg. models.

Torque Specifications

Recommended Torque in Foot Pounds (ft-lbs) & Newton Meters (NM)*

| Standard | | | | | | | |
|---------------------------|----------------------------|-----|--------------|------|--------------|------|--------------|
| | Bolt Head | | | | | | |
| Bolt Diameter (inches) | Wrench Size (inches) | | | (| | 2 | <u>}</u> |
| | | 1 | de 2 (NM) | | de 5 (NM) | | de 8 (NM) |
| 0.250 1/4 | 7/16 | 6 | 7 | 8 | 11 | 12 | 16 |
| 0.313 5/16 | 1/2 | 11 | 15 | 17 | 23 | 25 | 33 |
| 0.375 3/8 | 9/16 | 20 | 27 | 31 | 42 | 44 | 60 |
| 0.438 7/16 | 5/8 | 32 | 43 | 49 | 66 | 70 | 95 |
| 0.500 1/2 | 3/4 | 49 | 66 | 76 | 103 | 106 | 144 |
| 0.563 9/16 | 7/8 | 70 | 95 | 109 | 148 | 153 | 207 |
| 0.625 5/8 | 15/16 | 97 | 131 | 150 | 203 | 212 | 287 |
| 0.750 3/4 | 1 1/8 | 144 | 195 | 266 | 360 | 376 | 509 |
| 0.875 7/8 | 1 5/16 | 166 | 225 | 430 | 583 | 606 | 821 |
| 1.000 1 | 1 1/2 | 250 | 339 | 644 | 873 | 909 | 1232 |
| 1.125 1 1/8 | 1 11/16 | 354 | 480 | 795 | 1077 | 1288 | 1745 |
| 1.250 1 1/4 | 1 7/8 | 500 | 678 | 1120 | 1518 | 1817 | 2462 |
| 1.375 1 3/8 | 2 1/16 | 655 | 887 | 1470 | 1992 | 2382 | 3228 |
| 1.500 1 1/2 | 2 1/4 | 870 | 1179 | 1950 | 2642 | 3161 | 4283 |

| | Metric | | | | | | |
|---------------------------------------|--------|------|---------------|------|---------------|---|-----------------|
| | | | | Bolt | Head | | |
| Bolt Wrench Dia. Size (mm) (mm) | | 4. | 6 | | 8.8 | \(\begin{align*} \(\g\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0.8 |
| | | | s 4.6 (NM) | | s 8.8 (NM) | | s 9.8) (NM) |
| 8 | 13 | 7.3 | 10 | | | 21.1 | 29 |
| 10 | 16 | 14.5 | 20 | | | 42 | 57 |
| 12 | 18 | 25 | 34 | 74 | 100 | 73 | 99 |
| 14 | 21 | 40 | 54 | 118 | 160 | 116 | 157 |
| 16 | 24 | 62 | 84 | 167 | 226 | 181 | 245 |
| 20 | 30 | 122 | 165 | 325 | 440 | | |
| 22 | 33 | | | 443 | 600 | | |
| 24 | 36 | 211 | 286 | 563 | 763 | | |
| 27 | 41 | | | 821 | 1112 | | |
| 30 | 46 | 418 | 566 | 1119 | 1516 | | |

29.00

GROUND LEVEL

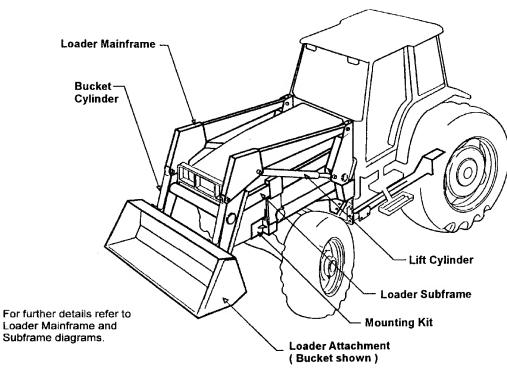
^{*}Use 80% of the specified torque value for plated or lubricated fasteners.

Dealer Pre-delivery Check List

Before delivering this equipment please complete the following check list.

| Ц | 1. The loader has been installed using the appropriate mounting kit for the tractor and loader. |
|------|---|
| | 2. The hydraulic system installed is appropriate for the tractor and loader. |
| | 3. The loader is properly installed. |
| | 4. All bolts are tightened to the torque specifications shown in the torque chart. |
| | 5. All safety decals are readable. |
| | 6. The loader has been tested and operates properly. |
| | The operator's manual has been delivered to the owner who has been instructed on the safe and proper use of the loader. |
| | Dealer's Signature |
| This | Check List is to remain in this Owner's Manual and is the responsibility of the Dealer to complete before delivery to the customer. |
| | |

Loader Identification Diagram

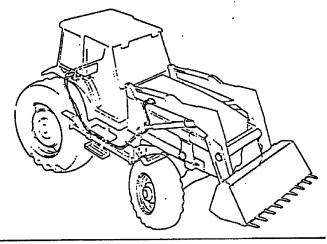


Hydraulic (Hose Kit) Identification Diagrams

HOSE KIT "A"

Loader powered by the tractor remotes.

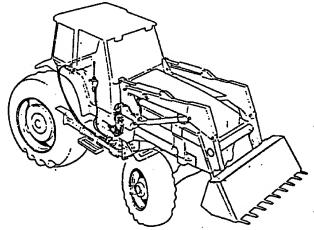
Consists of 4 hoses leading from loader tubing to tractor remote couplers.



HOSE KIT "B"

Loader operated by an external OC or CC valve that is powered from the tractor remotes.

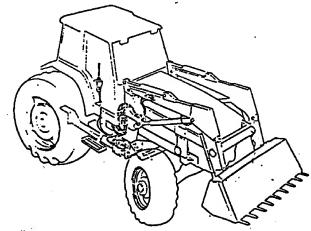
Consists of 4 hoses leading from loader tubing to external mounted valve and 2 hoses from valve to tractor couplers. Use the valve type shown with hose Kit "B".



HOSE KIT "C"

Loader operated by an external valve that is plumbed into the tractor hydraulic system.

Consists of 4 hoses leading from loader tubing to external mounted valve plus the necessary fittings, hoses and adapter blocks (if necessary) to tap into tractor hydraulic system. Use valve type shown with hose Kit "C".



(HSL Model shown)



IMPORTANT PRECAUTIONS



DANGER





ELECTROCUTION HAZARD

To prevent serious injury or death:

Stay away from power lines and cables.
 Electrocution can occur with or without direct contact.

MARNING



FALLING HAZARD

To prevent serious injury or death:

 Do not lift, carry or allow anyone to ride on or work from any portion of loader.

WARNING



CRUSHING HAZARD

To prevent serious injury or death:

- Do not handle round bales or other shiftable objects unless loader is equipped with an attachment designed for this purpose.
- Do not handle loose loads that are not secured.
- Do not lift load higher than necessary.

WARNING





HIGH-PRESSURE FLUID

To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair.
- If hydraulic fluid penetrates skin, obtain medical treatment IMMEADIATELY.



WARNING



ROLL-OVER HAZARD

To prevent serious injury or death:

- Move and turn tractor at low speed.
- Carry load no higher than necessary to clear the ground when transporting.
- Add wheel ballast or rear weight for stability.
- Move wheels to widest possible settings to increase stability.
- It is recommended the tractor be equipped with a rollover protective structure (ROPS).



WARNING



CRUSHING HAZARD

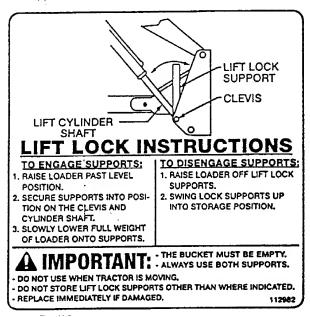
To prevent serious injury or death:

- Do not allow bystanders in loader work area.
- Lower loader to the ground before leaving seat.
- Do not walk or work under raised loader. For servicing, refer to operator's manual.
- Read and understand operator's manual before operating loader.

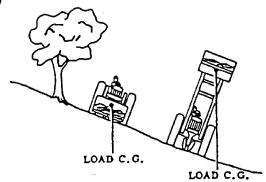
Safety

BLOCKING RAISED LOADER

 Never work beneath raised loader unless it is securely supported. Follow the instructions for the Lift Lock Supports on the decal mounted on the loader.

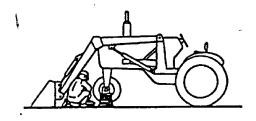


- Do not pivot or turn tractor at high speeds with bucket raised. Always make allowance for length of loader when making turns.
- Never leave tractor unattended while the bucket is raised. Always lower bucket to the ground and shut off before leaving tractor seat.
- · Do not walk under raised bucket.
- · Always operate loader while seated in tractor seat.
- Keep tractor on solid ground. Loose fill, rocks and holes can be dangerous for loader operation or movement.
- Never operate a loader with frayed or damaged hoses or leaking fittings.
- For stability, rear wheels of tractor should be set at maximum width spacing and ballasts added to rear wheels.



 Do not raise bucket to extreme heights while tractor is on an incline. Carry loader low for safety. Note in above illustration how the center of gravity moves out when bucket is raised on a slope. Be alert for terrain changes and adjust bucket accordingly. Keep bucket low, no more than one foot high, as long as possible.

Note: A pivoting front axle acts like a three-wheeled tractor until the stops hit the axle.



 If lift cylinders are used to raise front wheels of tractor for service, place blocks under tractor, kill engine, set park brake and remove key.

THIS SAFETY ALERT SYMBOL MEANS:

ATTENTION!

BECOME ALERT!

YOUR SAFETY IS INVOLVED!



Safety Decals

These decals are located as shown on the Decal Location diagram and the Sub-Frame Assembly diagram.

A WARNING



OVERHEAD HAZARD STAY AWAY FROM UNDER LIFT ARMS AND BUCKET

To prevent serious injury or death:

- 1. Do not stand or work under a raised loader, unless supported.
- 2. Support bucket and lift arms before working under loader.
- 3. Lower loader to the ground before leaving seat.

/ 112963

A CAUTION

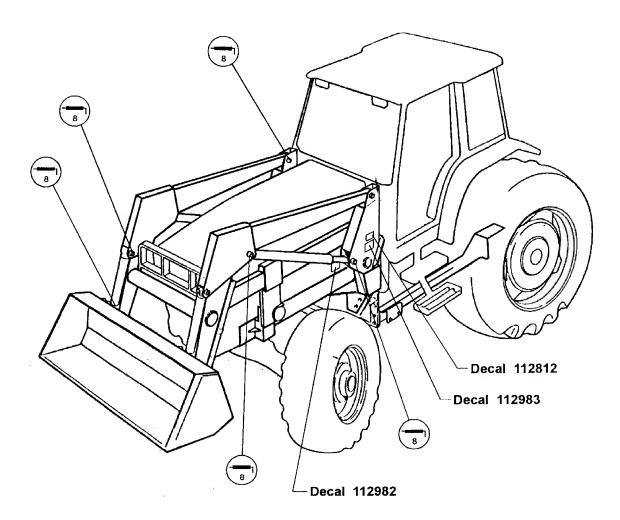
- 1. Read Operator's Manual before operating.
- 2. Move and turn tractor at low speed.
- 3. Carry loader arms at a low position during transport.
- 4. Lower loader arms, stop engine and lock brakes before leaving operator seat.
- 5. Do not stand or work under raised loader, unless properly supported.
- 6. Add recommended wheel ballast or rear weight for stability.
- Move wheels to widest recommended settings to increase stability.
- 8. Do not handle large round bales or other shiftable objects unless loader is equipped with a grapple fork.
- 9. Do not use loader to move or carry people.
- Stay away from power lines. Electrocution can occur without direct contact.
- 11. Review safety instructions annually.

J 112812

Lubrication and Decal Location Diagram

Lubricate tractor hydraulic unit as indicated in tractor Operator's Manual. Keep the bushings on lift arm pivots and cylinders well lubricated. Use high grade lithium grease every 8 hours of operation.

NOTE: Frequent greasing will prevent contaminants from migrating between the pins and bushings.



Symbol indicating grease after every 8 hours of operation.

8

General Instructions and Information

As with any piece of equipment, the care with which your loader is operated and maintained will greatly affect it's life and the safety of the people using it.

- Keep all pivots well lubricated for longer bushing life. Inspect every 500 hours of operation for wear.
- 2. Periodically check all bolts for tightness. If any bolt is damaged, replace it with a bolt of equivalent grade or strength.
- Follow the recommendations of the tractor manufacturer in regards to the quantity of oil used.
- 4. Check oil level frequently to ensure the system is full.
- 5. When making an oil check, be sure lift cylinders are retracted.
- 6. Before operating the loader, particularly if the loader is left standing for any length of time, check the hydraulic system and oil level.
- 7. When installing hydraulics, follow the circuit carefully. See hydraulic hook-up section and make sure the hoses do not contact any hot manifolds or sharp edges on tractor. After assembly, raise the loader slowly and check to make sure that the hoses do not bind in all positions.



CAUTION

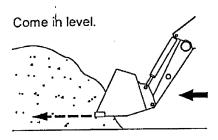
The pressure of the relief and open centre valves is set at the factory. Do not tamper with the setting. Serious injury to the operator or damage to the loader or tractor hydraulics may occur. Warranty will be void if the loader is operated above recommended pressure.

- 8. When servicing any hydraulic components, care must be taken to prevent any foreign matter from entering the system.
- 9. Do not neglect oil leaks. Leaks affect loader operation, are dangerous and can result in personal injury or damage to the hydraulic system.
- 10. Never leave the cylinder shafts exposed when loader is not in use.
- 11. Worn or damaged components should be replaced as soon as possible with only the manufacturer's recommended component or equivalent.

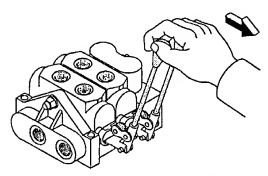
Operating Suggestions For Loading

When handling heavy loads, be sure to lower lift arms slowly. This is known as feathering the hydraulic lever. If load is lowered too fast and stopped suddenly, excessive shock loads are created which can damage loader or tractor.

When loading bucket, drive straight into material. Attempting to turn tractor while loading bucket can cause damage to both the loader and tractor.



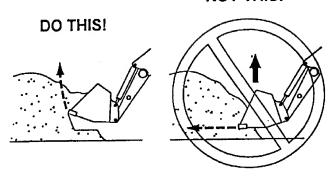
NOTE: Bottom surface of bucket is parallel to line on motion.



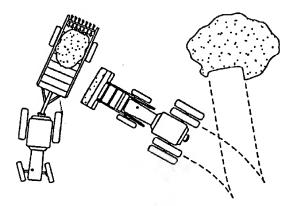
Work both levers back to direct pressure to both cylinders.

Combined action of lift and bucket cylinders increases loading efficiency.

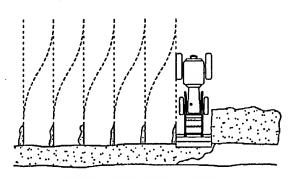
NOT THIS!



A straight bottom offers more resistance to lift.

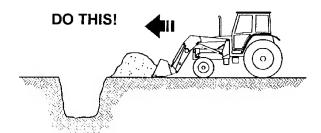


To increase loading efficiency, minimize angle of turn and length to run between pile and spreader.



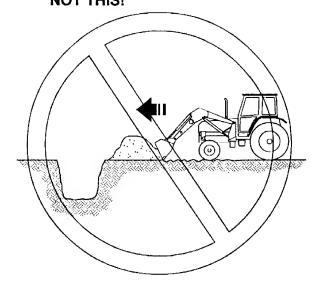
Leave material which drifts over side of bucket for final clean-up.

Operating Suggestions For Backfilling



When backfilling, approach pile with a flat bucket. Leave dirt in bucket. Dumping on each pass wastes time.





DO NOT use bucket in dumped position for bulldozing. This will only impose severe shock loading on the bucket cylinders and make it more difficult to maintain a level grade.



Backgrade work surface with a loaded bucket. Release all pressure on lift cylinders so full weight of bucket is scraping ground. Use heel of bucket.

DO NOT use bucket in dump position for backgrade work. This could cause bucket cylinder shaft failure.

WARNING!

DO NOT USE LOADER AS BATTERING RAM!



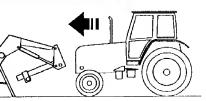
SAFETY: FIRST, LAST, ALWAYS!

Attaching the Loader to Your Tractor

- Position the tractor as centrally as possible and drive, using lowest gear possible, into the loader frame until hoses can be connected.
- 2. Couple up the hydraulic hose lines to the loader or tractor valve ensuring proper function (see Operator and Maintenance Section).

NOTE: When mounting the loader for the first time, slowly work the cylinders back and forth, so that most of the air is removed. Loosen the bolts on the hooks so that they can be moved. Also, check that the nuts in the rear of the subframes are in line with the holes.

3. On some tractors, the lift cylinders may have to be extended slightly, so that the subframes can clear the front axle. Do not extend the cylinders more than is required.



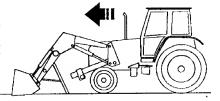


IMPORTANT! On HSL loaders, the bucket will dump at the same time the loader is lowered. Therefore, operate both hydraulic levers together.

4. Drive the tractor ahead until the subframe is past the front axle and the front hook is close to mounting boss.



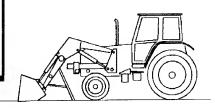
WARNING! Check front grill clearance during installation to avoid tractor damage.



5. Retract or extend the lift cylinders to line up the front hook with the mounting boss.



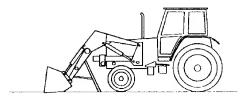
IMPORTANT! On HSL loaders, the bucket will roll back at the same time the loader is lowered. Therefore, operate both hydraulic levers together.



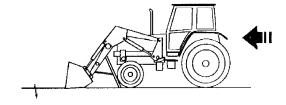
Attaching the Loader to Your Tractor

(Continued)

6. When the hook is lined up, dump or roll back the bucket to lower or raise the subframe upright to align with the mounting boot.

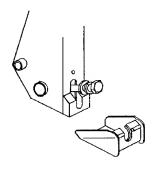


7. Continue to drive the tractor forward until the subframe uprights are seated in the boot.



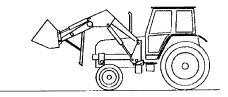
8. Secure the subframe uprights with the bolts and washers. Torque to 500 ft-lbs.

IMPORTANT: When mounting for the first time, the front hook bolts will have to be tightened after positioning the hook directly over the mounting boss (most rearward position).



9. Raise the loader and lock the support stand tubes into the up position.

NOTE: When mounting for the first time, raise the loader slowly and check to make sure that the hoses do not bind or become pinched in all positions. Work the loader and bucket up and down to work out all the air in the hydraulics. Check and refill the tractor's hydraulic system.



Removing the Loader from Your Tractor

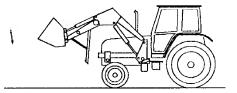


WARNING! When removing the loader, it must be fitted with a bucket or other suitable attachment to give the frame stability after removal. If this is not done, the frame will not remain standing.

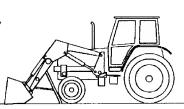


IMPORTANT! Always remove the loader on firm, level ground (away from children's play areas and high traffic areas). This makes attaching and removing much faster and easier. It also makes the free standing loader more stable.

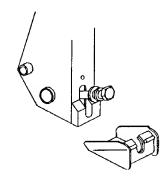
1. Raise the loader, lower support stand tubes and lock into position.



2. Lower the loader until the stand tubes are firmly on the ground and then dump the bucket so that it is also firmly on the ground. There should be a slightly downward pressure.

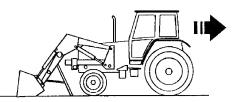


3. Loosen the bolts from the rear of the subframe boots and swing bolt up into lock position.



Removing the Loader from Your Tractor (Continued)

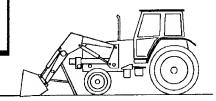
 Roll back the bucket slightly and simultaneously extend or retract the lift cylinders to free hooks from spools. Then slowly back up the tractor.



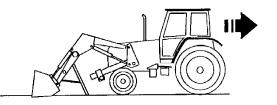
5. Once the subframe is clear of the boot and the hook is clear of the mounting boss, roll back the bucket all the way. This raises the rear uprights of the loader.



NOTE: On some mountings, the lift cylinders must be extended more while the tractor is backing up, so that the subframes clear the front axle.



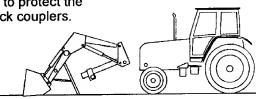
6. Continue backing up until the loader is clear.





CAUTION! Be sure the hoses DO NOT get pinched or catch on any frame members while backing up.

7. After the loader is clear, retract the lift cylinders to protect the shafts and disconnect the hydraulic lines at quick couplers.



Operation and Maintenance

GENERAL

Refer to tractor Operator's Manual for operating information on the tractor's hydraulic system.

Hydraulic systems using auxiliary valves should have them located for easy reach from the tractor seat. Hoses should be connected in such a manner that pushing forward on valve handles lowers the boom or dumps the bucket.

CAUTION: Always connect boom hoses to float section.

Weight added to rear of tractor provides better traction and an easier, more efficient loader operation. Extra weight, along with widening the rear wheels, reduces the risk of roll-over.

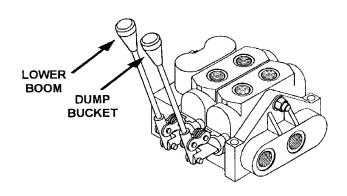


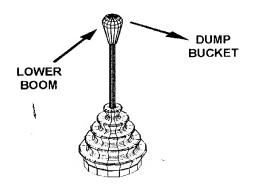
WARNING

The smaller the tractor is, the easier it will roll. We recommend that weight be added to rear tires with liquid or by the installation of rear wheel weights. Where additional weight is required, a counterweight box can be fabricated for tractors with three-point hitches.

Extra weight can also be added by the use of a heavy implement mounted to the three-point hitch.

A roll-over protective structure is also recommended.



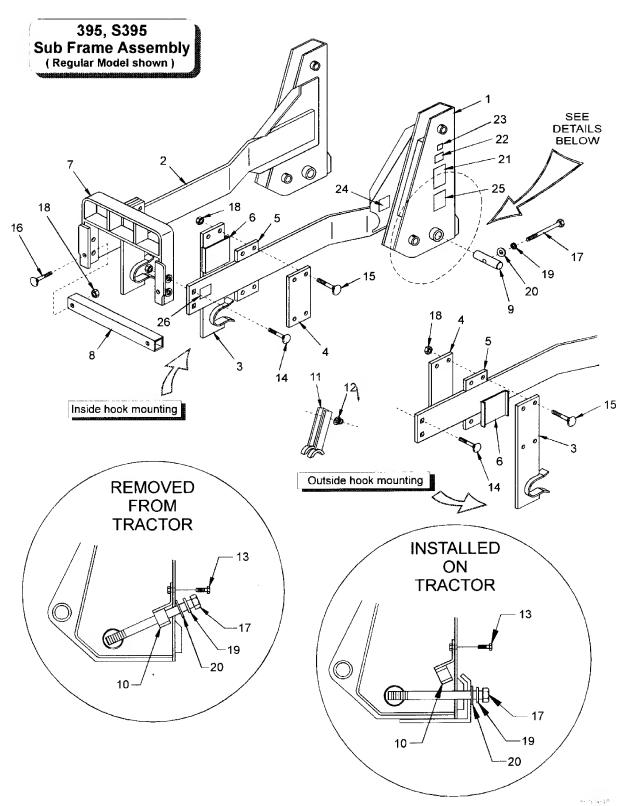


In cold weather, operate the tractor's engine at idle speed until the hydraulic fluid is warmed up. High engine speed when the hydraulic fluid is cold will cause the pump to wear prematurely.

Under normal conditions, operate the tractor's engine at 1/2 throttle. Shift the tractor into a low gear before entering a pile of material to minimize strain on loader arms.

Trouble Shooting

| PROBLEM | POSSIBLE CAUSE | REMEDY |
|---|--|---|
| Loader slow and/or will not dump. | Quick couplers leaking. | Check connections and compatibility or replace. |
| | Hydraulic oil too heavy. | Change or replace filter. |
| | | Clean or replace filter. |
| | Hydraulic pump worn. | Repair or replace pump. |
| | Oil line restricted or leaking. | Check all hoses and tubes for leaks, damage or restrictions. Replace damaged or restricted hoses or tube lines. |
| | Control valve does not shift properly. Air in hydraulic system. | Inspect, clean, repair or replace valve. Cycle lift cylinders and bucket cylinders several times to free system of air. |
| | Cylinder leaks internally. | Replace seals. |
| | Faulty valve. | Repair or replace valve. |
| Loader chatters or vibrates when | Air leak in pump inlet line. | Check, tighten or replace inlet line. |
| | Air in hydraulic system. | Cycle lift cylinders and bucket cylinders. |
| falsing and lowering. | Oil level too low. | Add oil as required. |
| Excessive movement at pivots | Worn bushings and/or pins. | Replace bushings and/or pins. |
| Pump noisy | Inlet line restricted or leaking. | Check for air leaks, restrictions or collapsed |
| Tump notay | | hose. Tighten or replace hose. Clean |
| | | filter if necessary. |
| | Oil level too low. | Add oil as required. |
| k. | Pump worn or damaged. | Repair or replace pump. |
| Oil leaks. | Damaged fittings or hoses. | Replace damaged parts. |
| | Loose connections. | Tighten fittings. |
| | Wom or damaged O-ring wiper | Install a seal repair kit. |
| | seal in cylinder rod end. | |
| | Wom or damaged O-rings in valve. | Install an O-ring repair kit. |
| Insufficient lift capacity | Improper hydraulic pump operation. | Repair or replace pump. |
| | Load is greater than boom lift capacity | . Check loader specifications. |
| | Internal boom cylinder leakage. | Replace any worn parts and install |
| | | a seal repair kit. |
| | Improper hydraulic valve operation. | Repair or replace valve. |
| Slow leakdown. | Worn control valve. Worn cylinder piston seals. | Have authorized dealer replace seals. Have authorized dealer replace seals. |
| Excessive wear on bottom oil bucket and wear pads. | Float position not used while operating loader. | Use float position provided on valve. |
| Hydraulic cylinders inoperative. | Hose from control valve improperly | Refer to plumbing diagrams. |
| | connected. | Con your trades manual for proper |
| Pump operating continually on closed center tractor hydraulic system. | open. | See your tractor manual for proper adjustment or Loader dealer for loader valve. (3000 PSI is maximum pressure |
| | | relief setting recommended.) |
| | Hydraulic control valve set too low. | Adjust valve in accordance with manual. |
| Loader lift and bucket tilt controls do not work according to decal. | Hoses improperly connected. | Refer to plumbing diagrams and correct hose connections. |
| Valve noisy and/or hot | Open center control valve on closed center tractor. | Replace relief valve with closed center plug and plug the power beyond adapter on valve |
| Tractor loads/pump squeals | Closed center control valve on open center tractor. | Install open center plug on optional valve. Replace closed center plug with relief and install short plug in place of power beyond adapter. |



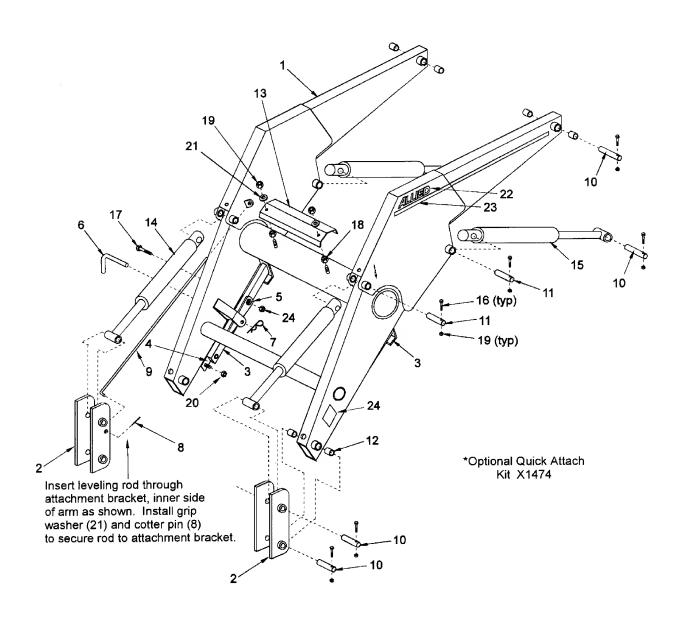
395, S395

Sub Frame Parts Table

| ltem | Part No. | Description | 395 | S395 |
|------|----------|---|-----|------|
| 1 | 31611 | 395 Sub Frame Weldment Left | 1 | |
| 2 | 31610 | 395 Sub Frame Weldment Right | 1 | |
| 1 | 31622 | 395 S Sub Frame Weldment Left | | 1 |
| 2 | 31623 | 395 S sub Frame Weldment Right | | 1 |
| 3 | 113253 | Hook Weldment | 2 | 2 |
| 4 | 112747 | Plate Clamp | 2 | 2 |
| 5 | 112746 | Spcer Block | 4 | 4 |
| 6 | 112748 | Shim | 2 | 2 |
| 7 | 114531 | Cross Member Weldment | 1 | 1 |
| 8 | 114537 | Tube Cross Member | 1 | 1 |
| 9 | 112642 | Shaft Pivot 1.75 Dia. x 5.50 Long | 2 | 2 |
| 10 | 113281 | Bolt Retainer Weldment | 2 | 2 |
| 11 | 113746 | Loader Lift Lock Weldment | 2 | 2 |
| 12 | 812717 | Grommet 0.375 ID x 1.00 OD x _t .13 | 2 | 2 |
| 13 | 812026 | Bolt Hex 0.313nc x 1.00 gr5 pl | 2 | 2 |
| 14 | 812882 | Bolt Car. 0.625nc x 2.50 gr5 pl | 4 | 4 |
| 15 | 84289 | Bolt Hex 0.625nc x 3.00 gr5 pl | 8 | 8 |
| 16 | 84127 | Bolt Car. 0.625nc x 3.50 gr5 pl | 2 | 2 |
| 17 | 812939 | Bolt Hex 0.875nc x 10.00 gr8 pl | 2 | 2 |
| 18 | 81967 | Nut Lock (Nylon) 0.625nc grB pl | 14 | 14 |
| 19 | 81723 | Washer Lock 0.875 pl | 2 | 2 |
| 20 | 112730 | Washer Boot | 2 | 2 |
| 21 | 112812 | *Decal - General Caution | 2 | 2 |
| 22 | 113500 | *Decal - 395 x 1.40 | 2 | 2 |
| 23 | 112615 | *Decal - S x 1.40 | | 2 |
| 24 | 112982 | *Decal - Lift Lock Instruction | 2 | 2 |
| 25 | 112983 | *Decal - Warning Overhead Hazard | 2 | 2 |
| 26 | 113474 | *Decal - Cross Member Caution | 2 | 2 |

^{*}Part of decal replacement kit X1296

395, S395 Main Frame Assembly (Regular Model shown)



395, S395

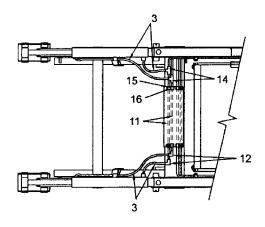
Main Frame Parts Table

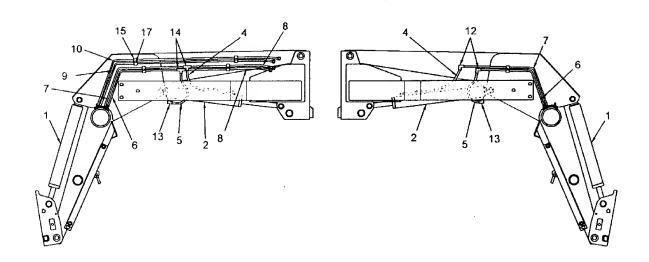
| ltem | Part No. | Description | 395 | S395 |
|------|-----------|--|-------|-------|
| 1 | 31620 | 395 Main Frame Weldment | 1 | - |
| 1 | 31621 | 395S Main Frame Weldment | - | 1 |
| 2 | | Attachment Bracket | | |
| 3 | 114354 | Stand Weldment | 2 | 2 |
| 4 | 114536 | Strap Stand | 2 | 2 |
| 5 | 24329 | Wrench Mounting | 1 | 1 |
| 6 | 110907 | Pin 0.625 Dia. Stand | 2 | 2 |
| 7 | 12779 | Hair Pin Clip #9 Western Wire | 2 | 2 |
| 8 | 84162 | Cotter Pin 5/32 x 1.0 | 1 | 11 |
| 9 | 114524 | Leveling Rod (48.0") | 1 | 1 |
| 10 | 112954 | Pin 1.25 Dia. x 6.75 Long | 8 | 8 |
| 11 | 112955 | Pin 1.25 Dia. x 5.00 Long | 4 | 4 |
| 12 | 113766 | Bushing 1.25 ID x 1.50 OD x 1.375 Long | 8 | 8 |
| 13 | 24242 | Tube Cover | 1 | 1 |
| 14 | 24493 | 2.0 Dia. x 20.75 Bucket Cylinder | 2 | 2 |
| 15 | 24495 | 2.0 Dia. x 20.75 Lift Cylinder | 2 | 2 |
| 16 | 81581 | Bolt Hex 0.375nc x 2.50 gr5 pl | 12 | 12 |
| 17 | 81669 | Bolt Hex 0.625nc x 3.50 gr5 pl | 4 | 4 |
| 18 | 81592 | Nut Hex 0.375nc gr2 pl | 4 | 4 |
| 19 | 81344 | Nut Lock (nylon) 0.375nc grB pl | 16 | 16 |
| 20 | 81967 | Nut Lock (nylon) 0.625nc grB pl | 6 | 6 |
| 21 | 81570 | Washer Flat Std 0.375 hs pl | 4 | 4 |
| 22 | 112614 | *Decal - Allied x 1.75 | 2 | 2 |
| 23 | 52281-000 | *Bright Orange Scotchcal #72368 | 8.5ft | 7.5ft |

^{*}Part of decal replacement kit X1296

395, S395 Loader Hydraulic Plumbing Diagram

(Regular Model shown)





395, S395 LOADER

Plumbing Parts Table

| Item | Part No. | Description | Qty. |
|------|----------|--|------|
| 1 | 24493 | 2.0 Dia. x 20.75 Cyl. Assy Bucket | 2 |
| 2 | 24495 | 2.0 Dia. x 20.75 Cyl. Assy Lift | 2 |
| 3 | 812973 | 3/8 x 12 Hose 3/4 MORB x 3/4 SWFJIC | 4 |
| 4 | 811754 | 3/8 x 18 Hose 3/4 MORB x 3/4 SWFJIC | 2 |
| 5 | 812947 | 3/8 x 22 Hose 3/4 SWFJIC x 3/4 SWFJIC | 2 |
| 6 | 114526 | Tubing - Lift Cyl. Bottom Raise | 1 |
| 7 | 114527 | Tubing - Lift Cyl. Top Drop | 1 |
| 8 | 113031 | Tubing - Lift Cyl. Top Drop Common (23.0") | 2 |
| 9 | 114528 | Tubing - Bucket Cyl. Bottom Rollback | 1 |
| 10 | 114529 | Tubing - Bucket Cyl. Top Dump | 1 |
| 11 | 112837 | Tubing - Bucket Cyl. Cross Tube | 2 |
| 12 | 812128 | Elbow 90 3/4 MJIC x 3/4 MJIC | 4 |
| 13 | 811414 | Elbow 90 3/4 MORB x 3/4 MJIC | 2 |
| 14 | 812069 | Tee 3/4 MJIC | 4 |
| 15 | 11362 | Clip Pipe Std. | 11 |
| 16 | 81592 | Nut Hex 0.375nc gr2 pl | 4 |
| 17 | 81344 | Nut Lock (Nylon) 0.375nc arB pl | 9 |

395, S395

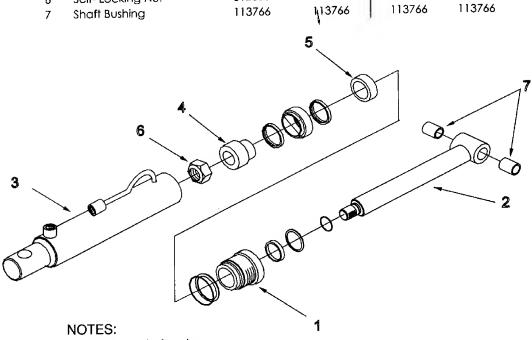
Hydraulic Cylinder Assembly

| | Description | Bucket | Cylinders | Lift Cy | linders |
|---|------------------------|--------|-----------|---------|---------|
| | Diameter | 2.00" | 2.50" | 2.00" | 2.50" |
| | Length of Stroke | 20.63" | 20.50" | 20.63" | 20.63" |
| | Retracted Length | 32.25" | 32.25" | 33.00" | 33.00" |
| | Extended Length | 52.88" | 52.75" | 53.63" | 53.63" |
| | Cylinder Assembly No. | 24493 | 24494 | 24495 | 24496 |
| | Seal Kit No. | X1348 | X1110 | X1349 | X1110 |
| | Shaft Diameter | 1.25" | 1.50" | 1.50" | 1.50" |
| 1 | Description | Part N | umber | Part N | umber |
| | Head Plate | 24516 | 24540 | 24522 | 24540 |
| | Shaft Weldment | 114523 | 114516 | 114525 | 113120 |
| | Cylinder Tube Weldment | 24513 | 24459 | 24515 | 24477 |
| | Piston Half (wide) | 114520 | 113217 | 114520 | 113217 |
| | Piston Half (narrow) | 114521 | 113216 | 114521 | 113216 |
| | Self-Locking Nut | 812655 | 810457 | 812655 | 810457 |
| | 3011 200.0.1.9 1.01 | | | 1107// | 1127// |

Lift Cylinders

113766

113766



113766

1. Bucket cylinder shown.

2. All cylinder seals are contained in corresponding seal kit.



Item

2

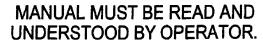
6

Shaft Bushing

CAUTION: Maximum pressure - 2750 psi

WARNING!

LOOK OUT FOR CHILDREN.
TEACH YOUR CHILDREN SAFETY.
(INFORM THEM OF DANGERS AROUND MACHINES)





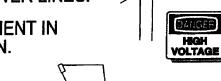
TRANSPORT

EMBLEMS MUST BE VISIBLE

ALWAYS MOVE EQUIPMENT IN LOW OR DOWN POSITION ESPECIALLY AROUND POWER LINES.



NEVER LEAVE EQUIPMENT IN RAISED POSITION.



POWER LINES





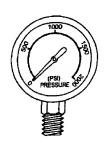
KEEP ALL GUARDS AND SHIELDS IN PLACE.

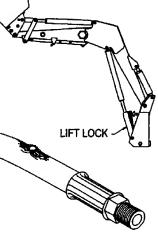
REPLACE DAMAGED OR WORN PARTS. FRAYED CABLES AND HOSES ARE DANGEROUS.



KEEP DECALS CLEAN AND LEGIBLE (REPLACEMENTS NORMALLY AVAILABLE)







DIVISION LOCATIONS

Allied Division 1201 Regent Ave. W. Box 1003

Winnipeg, MB R2C 3B2 Ph.: (204) 661-8711 Fax: (204) 654-2503

Farm King Division 301 Mountain Street S. Morden, MB R6M 1X7 Ph.: (204) 822-4467 Fax: (204) 822-6348

Inland Division 675 Washington Ave. Winnipeg, MB R2K 1M4 Ph: (204) 667-7854 Fax: (204) 669-2599

B.I.I. Division 1330 43rd Street N.W. Fargo, ND 58102 Ph: (701) 282-7014 Fax: (701) 282-5865

CANADIAN WAREHOUSES

B.C., Abbotsford (604) 864-2665

AB, Edmonton (403) 962-6991

SK, Regina (306) 781-2300

ON, Woodstock (519) 539-0435

ON, Jasper (613) 283-1758

QC, Dorion (450) 455-4840

U.S. WAREHOUSES

AR, West Memphis (870) 732-3132

GA, Stone Mountain (770) 908-9439

IA, Atlantic (712) 243-5520

IA, Lakeview (712) 657-8585

ID, Meridian (208) 887-6006

IL, Hooppole (815) 948-2591

IL, LeRoy (309) 962-8414

IN, Clarksville (812) 284-3376

IN, Crawfordsville (317) 362-4495 KS, Wichita

(765) 265-9577 MN, Lakeville (952) 469-5267

MT, Billings (406) 248-7771

NE, Gothenburg (308) 537-7175 NC, Dunn (910) 892-8500

NC, Statesville (704) 873-0531

ND, Bismarck (701) 223-1886

ND, Fargo (701) 282-7003

NY, Oneida (315) 363-3390

NY, Syracuse (315) 463-5276

OH, Youngstown (330) 793-0862

OR, Portland (503) 234-0378

SD, Huron (605) 352-8616

TX, Houston (713) 928-2632

UT, Salt Lake City (801) 972-4321

WI, Portage (608) 742-1370

OFFSHORE WAREHOUSES

Burando Hill Katanning W. Australia 011-618-98-214422

Chihuahua, Mexico 011-52-158-90306 John Kerr Equipment Ltd. Wilcoxholm Farm Linlithgow, W. Lothian Scotland 011-441-506-842280

Skovde, Sweden 011-46-500-452651

Naestved, Denmark 011-45-557-29511

bühler

Buhler Manufacturing "a partnership"

1201 Regent Ave. W. Winnipeg, MB.

R2C 3B2

Ph.: (204) 661-8711 Fax: (204) 654-2503 www.buhler.com

Printed in Canada